

We claim:

- 1     1.    A method, comprising the steps of:
  - 2           (a) obtaining information relevant to the quality of service of voice calls being
  - 3           transmitted from a first location to a second location via an IP network;
  - 4           (b) calculating a parameter based on said information; and
  - 5           (c) accepting a new call into the IP network in the case of said parameter not
  - 6           exceeding an upper threshold.
- 1     2.    The method of claim 1 wherein said new call is accepted into the IP network at
- 2       a reduced bandwidth in the case of said parameter exceeding a lower threshold.
- 1     3.    The method of claim 1 where said new call is not accepted into the IP network
- 2       in the case of said parameter exceeding the upper threshold.
- 1     4.    The method of claim 1 wherein the information obtained is a number of lost
- 2       packets, late packets and received packets (collectively defined as “sent” packets)
- 3       transmitted from said first location to said second location in the IP network.
- 1     5.    The method of claim 1 wherein the information obtained is a delay of received
- 2       packets transmitted from said first location to said second location in the IP
- 3       network.
- 1     6.    The method of claim 1 wherein the information obtained is a delay variation of
- 2       received packets transmitted from said first location to said second location in the IP
- 3       network.
- 1     7.    The method of claim 1 wherein the information is obtained on a periodic basis.
- 1     8.    The method of claim 1 wherein the information is obtained on an exception
- 2       basis using an immediate report.
- 1     9.    The method of claim 1 wherein the parameter is identified as a packet lost
- 2       ratio (PLR).



1 18. The apparatus of claim 14 wherein the third circuit compares a parameter  
2 based on the polled information to a plurality of thresholds.

1 19. The apparatus of claim 18 wherein the parameter is a packet loss ratio defined  
2 as

3 
$$PLR = \frac{(\text{lost packets} + \text{late packets})}{(\text{received packets} + \text{lost packets} + \text{late packets})}$$

1 20. The apparatus of claim 19 wherein the third circuit compares the packet loss  
2 ratio to a lower threshold and if the packet loss ratio is less than the lower threshold,  
3 a new voice call is accepted into the internet protocol network.

1 21. The apparatus of claim 19 wherein the third circuit compares the packet loss  
2 ratio to the lower threshold and an upper threshold, and if lower threshold < packet  
3 loss ratio < upper threshold, a new voice call is accepted into the internet protocol  
4 network at a reduced bandwidth.

1 22. The apparatus of claim 19 wherein the third circuit compares the packet loss  
2 ratio to the upper threshold, and if the packet loss ratio is greater than the upper  
3 threshold, a new voice call is blocked from entering the internet protocol network.